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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Thomas S. Grason

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EXAMINER

STRANGE, AARON N

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/020,646	Applicant(s) GRASON ET AL.	
	Examiner AARON STRANGE	Art Unit 2453	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. With regard to the rejection of claims 1-11 and 22 under 35 U.S.C. § 101, Applicant has presented no substantive arguments, merely asserting that the claims amendments should "obviate this rejection". The Examiner respectfully disagrees, and the rejection is maintained, as set forth below.
2. Applicant's remaining arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-11 and 22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
5. Claim 1 is directed to a system comprising a "device interface", a "module manager" and a plurality of modules. The specification describes each of these elements as a "mail server" (¶23), a "lightweight component" that is "multithreaded" (¶27) and "JAVA-based" (¶34), respectively. Based on the cited portions of the specification, one of ordinary skill in the art would have understood claim 1 as being

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directed to at least some software-only embodiments. Since the claim is not limited to statutory subject matter, it is non-statutory.

Since the term “processor”, when used in conjunction with the above claimed elements, is not limited to hardware by the specification of the claims, the broadest reasonable interpretation of the claimed elements still includes software-only embodiments. A software routine may reasonably be interpreted as a “processor”, since it may process information.

6. Claim 22 is directed to a “module manager” including a list and a module loading function. The specification describe the “module manager” as a “multi-threaded” “lightweight component” (¶¶37). Based on the cited portions of the specification, one of ordinary skill in the art would have understood claim 22 as being directed to at least some software-only embodiment. Since the claim is not limited to statutory subject matter, it is non-statutory.

Since the term “module manager processor” is not limited to hardware by the specification of the claims, the broadest reasonable interpretation of the module manager still includes software-only embodiments. A software routine may reasonably be interpreted as a “processor”, since it may process information.

7. All claims not individually rejected are rejected by virtue of their dependency from the above claims.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-5, 8-10, 12, 14, 15, 17, 19, & 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bavadekar (US 2003/10009571) in view of Doyle et al. (US 6,839,700) further in view of Stumm (US 5,768,528) further in view of Noble (US 5,978,842).

10. In considering independent claim 1, Bavadekar discloses a distributed information processing system, comprising:

a client device interface (fig. 3B 206, "HTTP proxy server") adapted to receive requests for a type of information (messaging services)([0068] from a plurality of remote devices (clients)(fig. 3B, 200A & 200B)(fig. 6B, steps 606 & 620, [0101]);

a stateless module manager (fig. 3B, 208, "web server") adapted to receive and route said requests from said client device interface (fig. 6B, steps 624 & 626, [0101]-[0102]); and

a plurality of information modules (fig. 3B, 202, "brokers" [0080]), wherein
said information modules register with said stateless module manager and wherein
the module manager routes said requests to an appropriate one of said plurality of

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information modules in accordance with the type of information requested (connection requests are forwarded to the appropriate broker)([0030-0031] & [0080]);

wherein said client device interface is adapted to receive on-demand requests (clients may establish sessions) ([0080])

However, Bavadekar does not specifically disclose handling service collisions by having one information module claim the requests based on the type of information in the requests or that the client device interface is adapted to receive scheduled requests or event driven requests.

Doyle teaches allowing servers to "claim" client requests such that subsequent requests for the same type of information will be handled by the server that handled the first request (col. 6, ll. 8-15; col. 6, l. 56 to col. 7, .l. 18), regardless of the source of the request. This would have been an advantageous addition to the system disclosed by Bavadekar since it would have allowed subsequent requests for a particular type of information to be serviced by a server that had recently done so, reducing the amount of information that has to be re-generated by the servers.

In similar field of information distribution, Stumm teaches a client device sending a subscription request when a user desires a scheduled responses from a subscription provider (col.5 lines 25-45) and Noble teaches a user to send an event driven request to receive information when criteria are met (client is notified when particular web pages have changed)(col. 5, ll. 21-42). Support for these types of information requests would have been an advantageous addition to Bavadekar since it would have given clients increased

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flexibility when requesting information, allowing them to be notified of changes periodically or when different events occur,

In view of the combined teachings of Bavadekar, Doyle, Stumm and Noble, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow servers to "claim" client requests and to allow clients to request information on a subscription or event-triggered basis, since it would have reduced re-generation of data for servicing client requests and allowed clients to request information in a more flexible manner that eliminated the need to continuously poll the brokers for new information.

11. In considering claim 2, Bavadekar discloses that the requests are formatted as serializable Java objects ([0009],[0014], [0073]).

12. In referencing claim 3, Bavadekar discloses:

- the appropriate one of said plurality of information modules (brokers) generates a response (message formatted as a "replies", [0004]) that is returned to said stateless module manager (Web server), and wherein said stateless module manager routes said response to said client interface device for delivery to a requestor (fig. 713, steps 720, 726, & 732,[0109]-[0110]).

13. With regard to claims 4, 14 and 19, Doyle further discloses that the stateless module manager process enables one of the information module processors to own the subsequent requests independent of which of the plurality of remote devices transmits the

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requests of the subsequent requests (requests are owned based on the content of the requests, not the source) (col. 6, ll. 8-15; col. 6, l. 56 to col. 7, .l. 18),

14. In considering claims 5, 15, & 20, Bavadekar discloses:

- requests are made to said stateless module manager (Web server) as one of a synchronous or asynchronous request, wherein synchronous requests are handled on a first-in-first-out basis, and wherein asynchronous requests are processed and returned when completed ([0026],[0069]).

15. In referencing claim 8, Bavadekar discloses:

- information modules are loaded locally and remotely, wherein local modules reside on a same physical device as said stateless module manager, and wherein remote modules are located on other devices [0075].

16. In referencing claim 9, Bavadekar discloses:

- communication between locally loaded modules and said stateless module manager is accomplished via memory calls, object inheritance or inter-process communication [0075].

17. In referencing claim 10, Bavadekar discloses:

- communication between remotely loaded modules and said stateless module manager are accomplished via TCP/IP sockets ([0033],[0081]).

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18. Claims 12 and 17 are rejected under the same rationale as claim 1, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

19. Claims 6, 16, 21 and 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bavadekar (US 2003/10009571) in view of Doyle et al. (US 6,839,700) further in view of Stumm (US 5,768,528) further in view of Noble (US 5,978,842) further in view of Burd et al. (US 6,757,900).

20. In considering claims 6, 16 & 21, while Bavadekar inherently discloses a stateless module manager, Bavadekar does not explicitly disclose creating and discarding instances of the module manager. Nonetheless, in analogous art, Burd discloses a stateless module manager adapted to receive requests for electronic information from remote devices [fig. 2, steps 200-202, col. 4, lines 41-48]. Burd further discloses:

instances of said stateless module manager are created each time a new request is received and discarded after the request has been handled [fig. 2, step 212, col. 8, lines 44-65].

Given the teachings of Burd, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system/method disclosed by Bavadekar where instances of the stateless module manager are created each time a new request is received and discarded after the request has been handled. The motivation, as

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suggested by Burd, would be to clean up and close the connection after the request has been handled [col. 15, lines 31-40].

21. Claims 22 and 32 substantially correspond to the combination of claims 1, 5 and 6, and is rejected under the rationale set forth above for those claims. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

22. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bavadekar (US 2003/10009571) in view of Doyle et al. (US 6,839,700) further in view of Stumm (US 5,768,528) further in view of Noble (US 5,978,842) further in view of Hunt (US 2002/10087657).

23. In referencing claim 7, while Bavadekar in view of Burd disclose stateless instances of a module manager, Bavadekar in view of Burd do not explicitly disclose a multi-threaded instance of a module manager. Nonetheless, in analogous art, Hunt discloses a system (see fig. 4), comprising a stateless module manager (fig. 4, #4, "server") adapted to receive requests from a remote device (fig. 4, #402) (fig. 6,[0048]). Hunt further discloses:

instances of said module manager are stateless and multi-threaded ([0033], [0050]).

Given the teachings of Hunt, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system/method disclosed by Bavadekar and Burd where instances of the stateless module manager multithreaded. This would have been a desirable feature because multiple requests could be serviced concurrently for improved efficiency.

24. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bavadekar (US 2003/10009571) in view of Doyle et al. (US 6,839,700) further in view of Stumm (US 5,768,528) further in view of Noble (US 5,978,842) further in view of Langseth et al. (US 6,741,980).

25. In considering claim 11, while Bavadekar discloses a information modules, Bavadekar does not explicitly disclose consulting a subscriber database. Nonetheless, in analogous art, Langseth discloses a module manager adapted to receive request for electronic information from a plurality of client devices [fig. 2A, col. 1, lines 12-23].

Langseth further discloses:

information is sent by said information modules (fig. 2A, "channels"); and said subscription database (fig. 2A, ;426) is consulted to determine to which clients the information should be forwarded [col. 4, lines 7-15, col. 8, lines 30-36].

Given the teachings of Langseth, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system/method disclosed by Bavadekar where a subscriber database is consulted to determine to which clients the

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information should be forwarded. The motivation, as suggested by Langseth, would have been to forwarded information could be personalized to the client's desires [col. 4, lines 7-15].

26. Claims 13 & 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bavadekar (US 2003/10009571) in view of Doyle et al. (US 6,839,700) further in view of Stumm (US 5,768,528) further in view of Noble (US 5,978,842) further in view of Masters et al. (US 6,374,300).

27. In considering claims 13 & 18, Langseth implicitly discloses:

- maintaining a list of supported services provided by each of said information modules [col. 7, lines 10-15, 45-50, col. 26, lines 26-39].

Both Bavadekar and Langseth do not explicitly disclose handling service collisions. Nonetheless, in analogous art, Masters discloses a system for receiving and responding to requests for electronic information (abstract). Masters further discloses:

handling service collisions if plural information modules (fig. 1A, #120, "node servers") are capable of responding to said type of information such that only one information module processes said request [fig. 2A, step 128, col. 7, lines 41-62].

Given the teachings of Masters, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system/method disclosed by Bavadekar and Langseth to handle service collisions of plural information modules. The

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motivation as suggested by Masters, would be to load balance the request to the optimal information module [col. 7, lines 41-62].

Conclusion

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON STRANGE whose telephone number is (571)272-3959. The examiner can normally be reached on M-F 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron Strange/
Examiner, Art Unit 2453